(Amended) A removable electrical interconnect apparatus for removably 31. engaging electrically conductive pads on a semiconductor substrate having integrated circuitry fabricated therein, the apparatus comprising:

a substrate; and

an engagement probe projecting from the substrate to engage/a single conductive pad on a semiconductor substrate having integrated circuitry formed in the semiconductor substrate, the engagement probe having an outer surface comprising an apex in the form of at least one knife-edge line sized and positioned to extend elevationally above a surface of the substrate to engage the single conductive pa

- The removable electrical intercornect apparatus of claim 31 wherein the 32. engagement probe is formed on a projection from the substrate.
- The removable electrical interconnect apparatus of claim 31 wherein the 33. knife-edge line projects from a penetration stop plane.
- The removable electrical interconnect apparatus of claim 31 wherein the 34. knife-edge line projects from a penetration stop plane, the knife-edge line having a tip and a having a base at the penetration stop plane, the tip being a distance from the penetration stop plane of about one-half the thickness of the conductive pad which the apparatus is adapted to engage.

S:\MI22\1703\M03.wpd A21522281503N

- The removable electrical interconnect apparatus of claim 31 wherein the 35. engagement probe is formed on a projection from the substrate, the knife-edge line projecting from a penetration stop plane on the projection.
- The removable electrical interconnect apparatus of claim 31 wherein the 36. engagement probe is formed on a projection from the substrate, the knife-edge line projects from a penetration stop plane on the projection, the knife edge line having a tip and a having a base at the penetration stop plane, the tip being a distance from the penetration stop plane of about one-half the thickness of the conductive pad which the apparatus is adapted to engage.
- The removable electrical interconnect apparatus of claim 31 wherein 37. outermost portions of the electrically conductive apexes constitute a first electrically conductive material, and wherein the conductive pads for which the apparatus is adapted have outermost portions constituting a second electrically conductive material; the first and second electrically conductive materials being different.
- The rémovable electrical interconnect apparatus of claim 31 wherein the 38. engagement probe is formed from a semiconductor substrate.
- The removable electrical interconnect apparatus of claim 31 wherein the knife/edge line includes an outer conductive layer. 3 S:WI22\1703\M03.wpd A21522281503N

40. The removable electrical interconnect apparatus of claim 31 wherein the outer surface includes plural knife-edge lines configured to engage the single conductive pad.



- 41. The removable electrical interconnect apparatus of claim 31 wherein the engagement probe is formed from a semiconductor substrate and the outer surface includes plural knife-edge lines configured to engage the single conductive pad.
- 42. The removable electrical interconnect apparatus of claim 31 wherein the engagement probe is formed from a semiconductor substrate and the outer surface includes plural knife-edge lines configured to engage the single conductive pad and the knife-edge lines include outer conductive layers.
  - 43. Please cancel.
  - 44. Please cancel.
  - 45. Please cancel.
  - 46. Please cancel.
  - 47. Please cancel.
  - 48. Please cancel.
  - 49. Please cancel.
  - 50. Please cancel.

- 51. Please cancel.
- 52. Please cancel.
- 53. Please cancel.
- 54. (Amended) A removable engagement probe having an outer surface comprising an apex in the form of at least one knife-edge line sized and positioned to engage a single conductive pad; and



wherein the knife-edge line projects from a penetration stop plane

- 55. The removable engagement probe of claim 54 wherein the at least one knifeedge line is formed on a projection from a substrate.
- 56. (Amended) The removable engagement probe of claim 54 wherein the outer surface comprises a plurality of apexes having respective tips and bases, and the penetration stop plane is intermediate the bases and substantially parallel to a surface of a substrate.
- 57. The removable engagement probe of claim 54 wherein the knife-edge line projects from a penetration stop plane, the knife-edge line having a tip and a having a base at the penetration stop plane, the tip being a distance from the penetration stop plane of about one-half the thickness of the conductive pad which the apparatus is adapted to engage.

S:\M\!22\1703\M03.wpd A21522281503N

- 58. The removable engagement probe of claim 54 wherein the knife-edge line is formed on a projection from a substrate, the knife-edge line projecting from a penetration stop plane on the projection.
- 59. The removable engagement probe of claim 54 wherein the knife-edge line is formed on a projection from a substrate, the knife-edge line projects from a penetration stop plane on the projection, the knife-edge line having a tip and a having a base at the penetration stop plane, the tip being a distance from the penetration stop plane of about one-half the thickness of the conductive pad which the apparatus is adapted to engage.
- of the electrically conductive apexes constitute a first electrically conductive material, and wherein the conductive pads for which the probe is adapted have outermost portions constituting a second electrically conductive material; the first and second electrically conductive materials being different.
- 61. The removable engagement probe of claim 54 wherein the probe is fabricated from a semiconductor substrate.